PROCESS AND DEVICE FOR SYNCHRONIZATION AND CODEGROUP IDENTIFICATION IN CELLULAR COMMUNICATION SYSTEMS AND COMPUTER PROGRAM THEREFOR

Abstract of the Disclosure

In a first step, slot synchronization may be obtained by setting in correlation the received signal with a primary sequence, which represents the primary channel, and storing the received signal. During a second step, the correlator may be re-used for correlating the received signal with a secondary sequence corresponding to the secondary synchronization codes. The correlator may include a first filter and a second filter connected in series, which receive a first secondary sequence and a second secondary sequence, which may include Golay sequences. Architectures of parallel and serial types, as well as architectures designed for re-using further circuit parts are also disclosed. The invention is particularly application in mobile communication systems based upon standards such as UMTS, CDMA2000, IS95, and WBCDMA.